

### REMARKS

Applicant acknowledges receipt of the Decision of Appeal dated December 22, 2008. A Request for Continued Examination (RCE) is attached, and Applicant requests entry of the above amendment and consideration of these remarks. A discussion of Applicant's technology, the Barnes reference, and the patentability of the claims in light of the Barnes reference is provided below to expedite the prosecution of this matter.

The Examiner and the Board of Patent Appeals applied U.S. Patent Number 3,760,412 to Barnes. The Barnes reference discloses discriminating between long and short pulse widths using a time reference derived from an immediately preceding input pulse. See Abstract. To discriminate between zero bit pulses with a width of one time unit and one bit pulses with a width of two time units, a reference signal with the relative value of 1 1/2 time units is used. See col. 3, lines 42-50. The reference signal of Barnes, however, is generated in different manner than examples provided in the present application. Barnes generates the reference signal by utilizing a faster clock for counting when the last bit received was a zero bit. See col. 5, lines 45-59. By using a faster clock, the count of clock periods in the shorter pulsewidth will be equal to the count when a slower clock is used to count clock periods in the longer pulsewidth.

#### **Novelty over Barnes**

Turning now to the claims, Applicant submits Barnes fails to disclose the combination of features recited in Applicant's independent claims 4 and 9.

Independent claim 4 recites "counting clock pulses between two signal transitions of a data stream including pulse widths of a first length and pulse widths of a second length to generate a width value;" "comparing the width value with a median pulse width value corresponding to a length between the first length and the second length, the median pulse width value based in part on a previously demodulated pulse width;" "outputting a digital signal indicative of the comparison;" and "generating a revised median pulse width value using the width value in part by dividing the width value by a first factor to generate a divided value, selecting either the divided value or the width value as a minimum pulse width based in part on

the digital signal output, and multiplying the minimum pulse width by a second factor to generate the median pulse width value.” As described above, Barnes does not disclose the combination of these features, at least because Barnes discloses the use of two frequencies of clock signal to generate a reference signal.

Independent claim 9 recites “a counter configured to count clock periods between two signal transitions in a data stream including pulse widths of a first length and pulse widths of a second length, the counter configured to output a width value corresponding to a number of clock periods between the two signal transitions;” “a comparator configured to receive the width value and compare the width value with a median pulse width and output a digital signal based on the comparison, the median pulse width based in part on a width between two previous transitions of the data stream;” “a divider configured to divide the width value by a first factor;” “a multiplexor configured to receive the width value, the divided width value, and the output digital signal, the multiplexor configured to output either the width value or the divided width value based in part on the output digital signal;” and “multiplier configured to receive either the width value or the divided width value output by the multiplexor and multiply the received signal by a second factor to generate a revised median pulse width.” As described above, the Barnes reference fails to disclose this combination of features, at least because the Barnes reference instead employs two different frequency clock signals to generate a reference signal.

Accordingly, Applicant submits independent claims 4 and 9 are patentable over the Barnes reference.

### **Dependent Claims**

Claims 5-8 and 10-15 depend from and include all limitations of at least one of Applicant’s respective independent claims discussed above. These claims are also patentably distinguished over Barnes because of their dependency on patentable independent claims and because of the additional limitations added by those claims. Applicant has, for brevity, chosen not to individually discuss additional distinguishing characteristics of the dependent claims. Applicant’s silence should not be interpreted as belief that the dependent claims are patentable only by virtue of their dependence on a patentable independent claim.

Favorable consideration and a timely Notice of Allowance are earnestly solicited. If a telephone conversation would be helpful in furthering the prosecution of this matter, the Examiner is invited to call the undersigned.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read 'J. Lane', is written over the printed name 'Jennifer M. Lane'.

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